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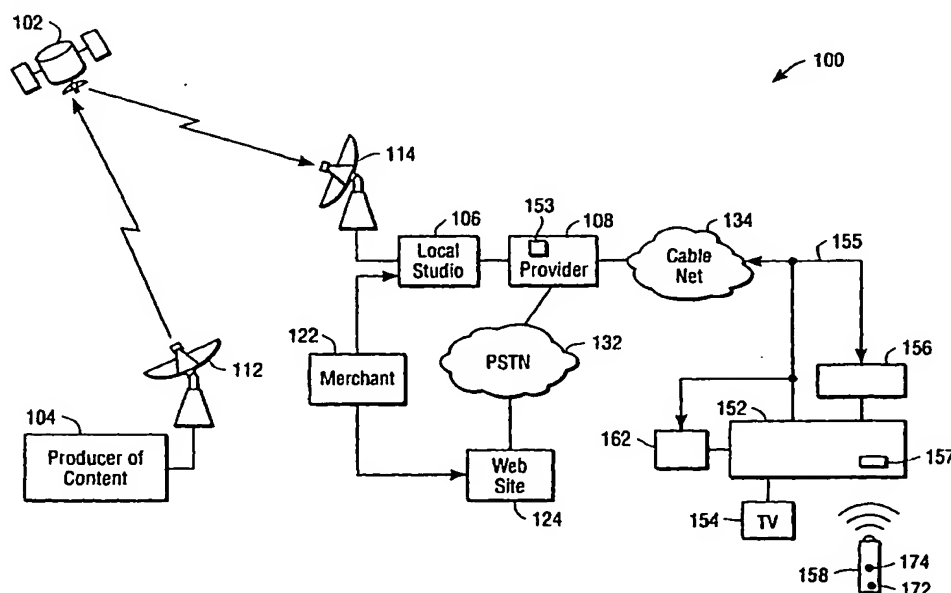
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(54) Title: METHOD AND APPARATUS FOR PURCHASING PRODUCT OVER AN INTERACTIVE TELEVISION NETWORK



(57) Abstract: Advertising of product in an interactive television system is facilitated by including additional information in the transmission. Presence of the additional information is detected and in response, the viewer is informed accordingly. An authorized merchant list controls which merchants can present the additional information. The viewer selects whether to display the additional information. Connection to a communication network permits the viewer to gain still further information. The viewer can ultimately initiate a purchasing action to purchase the product(s).

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## Method and Apparatus for Purchasing Product Over an Interactive Television Network

### CROSS-REFERENCES TO RELATED APPLICATIONS

5           The present application is related to and claims priority from provisional application U.S. Serial No. 60/193,046, filed March 29, 2000, which is hereby incorporated by reference in its entirety.

### BACKGROUND OF THE INVENTION

10           The present invention relates generally to commerce over a data communication network and more particularly to the secure purchase of goods and/or services over an interactive television network having connectivity to the data communication network.

          An important business element in the production and distribution of  
15 television programming is the revenue received from manufacturers and service providers who pay to advertise their product. The ubiquitous television commercial is the manifestation of this enterprise. The survival of a television program is heavily dependent on the advertising revenue that can be realized from the program. Advertisers in turn rely on the ability of the television program to draw viewers who then become  
20 potential purchasers of the advertised products. An effective commercial is one which captures the viewer's attention in a lasting manner which ultimately results in the purchase of product.

          Television commercials do not always reach the viewer for various reasons. Many take the opportunity of the commercial break to do things other than  
25 watch the commercial. The mute button on the television remote control allows the viewers to silence the television during a commercial break and engage in conversation or other activity. Recording of television programs on a VCR is a common practice for time-shifting programs, and it allows the viewer to fast-forward through the commercials. VCR models exist which can detect the commercials and automatically fast forward  
30 through them.

          There is a need for more effective advertising of product. It is desirable to provide an approach which increases the likelihood that a consumer will purchase the

product being advertised. It is also desirable to be able to effectively reach the viewer when programs are time-shifted by VCR's or like devices.

### SUMMARY OF THE INVENTION

5           A method for the advertisement and sale of product in accordance with the invention includes transmitting a television signal containing audio-visual content. The audio-visual content includes product (goods and/or services) for sale. The signal is received and shown on a television screen. A viewer-initiated selection of one or more products shown in the audio-visual content is received. In response to a viewer-initiated  
10           action, product supplemental information is shown on the television screen. In response to another viewer-initiated action, still further information is shown which permits the viewer to effectuate a purchase of the product.

          In another aspect of the invention, the viewer can be connected to one or more web sites. The selection of web sites can be determined by the seller of the viewer-  
15           selected product.

          In one embodiment of the invention, an indication to the viewer is made that there is product supplemental information contained in the audio-visual content. In a specific embodiment of the invention, the indication comprises a graphic overlay that is displayed along with the audio-visual content.

20           The present invention further comprises a system which enables the foregoing method for advertising and selling product shown in televised audio-visual content. There is a producer of the audio-visual content. A broadcasting component transmits the audio-visual content as a television transmission to a television set. Product supplemental information relating to product in the audio-visual content is inserted into  
25           the television transmission. The television set includes an associated set top unit that is configured to detect viewer input to the system. The set top unit is connected to a data communication network, and in one embodiment of the invention the network is a global communication network such as the Internet. In another embodiment, the network is a locally provided data network.

30           In one embodiment of the invention, the foregoing audio-visual content comprises conventional advertisement programming material. In another embodiment of the invention, the foregoing audio-visual content comprises non-advertisement programming material. In yet another embodiment of the invention, the foregoing audio-

visual content is a combination of conventional advertisement and non-advertisement programming material.

### BRIEF DESCRIPTION OF THE DRAWINGS

5           The teachings of the present invention can be readily understood by considering the following detailed description in conjunction with the accompanying drawings:

Fig. 1 is a general overview of the production and ultimate reception of the television signal in accordance with the invention;

10           Fig. 2 is another general overview showing an alternate approach to the production of the television signal;

Fig. 3 is a flow diagram illustrating a typical sequence of events during the display of commercial content; and

15           Figs. 4A – 4D show a typical advertisement in accordance with the invention.

### DESCRIPTION OF THE SPECIFIC EMBODIMENTS

Fig. 1 shows an exemplary arrangement of an interactive television system 100 in accordance with an embodiment of the invention. A production company 104  
20       produces programming content for transmission to viewers. The transmission is sent over an uplink channel to a satellite 102. The satellite then transmits the program over a downlink channel to a local studio 106. The local studio inserts additional programming (e.g. regional programming) and/or advertisements as needed.

A cable network 134 is provided by a cable service provider 108 to  
25       distribute the program to cable subscribers. A set top box 152 located on the premises of a cable subscriber receives the signal and delivers the signal to the subscriber's television set 154. Alternatively, the signal can be broadcast over a wireless medium and received by a traditional aerial antenna or by a satellite dish, and delivered to the set top box. Moreover, the invention contemplates all manner of broadcast media, including but not  
30       limited to, cable systems, satellite, VDSL, web casts, and so on.

The function provided by the television set 154 can also be provisioned by a personal computer properly configured with an adapter to convert television signals to a digitized format and deliver them to the video portion of the computer for display. It is

noted that the invention is not limited to any one configuration of display hardware, as the invention will work equally well using alternative reception and display arrangements.

In accordance with the invention, a connection to a communication network is provided for the cable subscriber. In a preferred embodiment, the connection is made via cable modem 156 over a bi-directional communication link 155 to a data communication network such as the Internet by way of a public switched network 132. A cable modem arrangement is preferred because of its high bandwidth capability. However, not all cable companies are equipped to provide cable modem service to their customers. In those cases, various alternative arrangements can be made. For example, a conventional modem connection can be used to access the internet over a telephone line. As another example, Internet access can be gained over a DSL connection or an ISDN connection using a telephone line. Wireless systems are now available for providing Internet access.

It is noted that the Internet is chosen as the preferred data communication network because it is a well established network and connectivity to it is easily made. However, it will become clear that a global communication network such as the Internet is not required to practice the invention. A locally provided and maintained communication network is well within the scope of the invention as claimed.

Continuing with Fig. 1, the television set 154 includes a set top box 152. It is not important where the functionality of the set top box is implemented. The set top box can be a component that is separate from the television set as shown in the figure, or its functionality can be built into the circuitry of the television set. The set top box enables a viewer to select a program to view and delivers it to the television set.

Fig. 2 shows another embodiment of the present invention wherein the televised program is downloaded to a head-end receiving station 202 rather than to the local studio 106. A reverse channel from the head-end to the local studio is provided so that the local studio can insert additional programming content and feed the signal back to the head-end. The head-end then delivers the signal over the cable network 134 to the cable subscribers.

As noted above, the local studio 106 inserts additional programming to the received transmission, for example, to provide cable content which includes locally provided channels. The programming is then distributed to its customers over the cable network 134. In addition to local program insertion, the local studio inserts advertising content. Product supplemental information relating to the advertising for participating

merchants is inserted. Product supplemental information is information relating to the goods or services being advertised in the commercial. In addition to goods and services, coupons and other information services can be made available to the viewer. The triggers are continuously updated as the broadcast is being received.

5                   In accordance with an embodiment of the invention, a participating merchant list 153 is maintained. As the name implies, this list permits only participating merchants to provide their product supplemental information to the viewer.

                  Various methods for carrying the product supplemental information can be used. For example, triggering information can be included vis-à-vis the ATVEF  
10 (advanced television enhancement forum) standard. For example, a URL can be embedded in the broadcast stream. Other standards include Wink and WorldGate.

                  Another approach is to parse EPG (electronic programming guide) data and correlate it to targeting parameters. Yet another approach is to embed code or a script in the stream which would run on the client to provide the information and/or purchase  
15 experience.

                  As noted above, the triggers can be inserted by the originating broadcaster, a local broadcaster, or by the cable system operator. Fig. 2 illustrates another point of insertion of the product supplemental information. Here, the merchant 222 is located such that commercial insertion is made prior to the uplink transmission to the satellite  
20 102.

                  Referring to the high level flow chart of Fig. 3, operation of the invention includes receiving the television signal, action 302. The audio-visual content contained in the signal is displayed, action 304. In the case of non-commercial content, namely regular programming content, no further processing occurs. The content is simply  
25 delivered to the television screen. In the case of commercial content, namely advertising, there may be product supplemental information relating to the product(s) that is the subject of the commercial. In addition to the product supplemental information, there is targeting information which identifies the location of the product within the displayed area. The product supplemental information is correlated with the targeting information,  
30 for reasons that will become clear in the discussion below.

                  If the presence of product supplemental information is detected, a determination (test 301) is made to ascertain whether the merchant is listed in the participating merchant list 153. If the merchant is not in the list, the information is removed from the transmission. If the merchant is a participating merchant, the

information remains in the transmission. In an embodiment of the invention, this test and removal of the triggering information occurs prior to reception at the viewer premises.

5 A graphic (Fig. 4A, 402) is displayed (action 306) to indicate that product supplemental information relating to the advertised product(s) is available. Alternatively, an audible indication can be produced. Yet another alternative is to provide some combination of visual and audible cues to communicate to the viewer the presence of information.

The product supplemental information is accessed by a user input device. For example, Fig. 1 shows a remote control unit 158 having an information button 172 for  
10 calling up the product supplemental information and a "buy" button 174 for making a purchase. Alternatively, graphic indicators which look like the buttons on the remote control unit can be presented. Upon activating the information button, an appropriate signal is transmitted to the set top box. The set top box detects the signal and in response displays the product supplemental information. Upon activating the buy button, the  
15 viewer is immediately led through a sequence of events culminating in a purchase.

The participating merchant list 153 ensures that only those merchants who qualify to participate can present product supplemental information to the viewer. Absent the list, the set top box might display the graphic each time it detected the presence of the product supplemental information, and the information itself if the viewer called it up.  
20 The participating merchant list prevents unqualified merchants from inserting their signal unbeknownst to the cable provider and subsequently presenting the information to the viewer. Alternatively, triggers embedded in the stream by non-content partners could be stripped by the MSO. Merchant qualification can be based on the content of the advertisement or whether a licensing arrangement has been made with the cable provider,  
25 and so on.

Returning to Fig. 3, it can be seen that various interactions 310, 312, 314 are possible. The viewer makes an appropriate selection on the remote control unit to initiate a set of interactions to effectuate a purchase of the product(s) shown in the commercial. For example, the viewer might request additional information, step 314.  
30 The user can be taken to a Web page for information. Additional information may be displayed (by way of script, applet, or code). A signal may be sent to the merchant to deliver an email or regular mail to the user.

Referring to Figs. 4A – 4D, three user experience scenarios in accordance with the present invention will now be discussed: (i) the viewer makes an immediate

purchase; (ii) the viewer is "window shopping" and simply desires additional information; and (iii) the viewer asks for additional information and subsequently makes a purchase. The figures show a sequence of selected images of a typical commercial aired during a broadcast during which time the viewer has taken a series of actions in accordance with one of the three foregoing scenarios.

Fig. 4A shows a frame of the video. In this case, the merchant is a participating merchant. Consequently, a graphic 402 (and/or audible cue) is displayed in the lower left side of the video, indicating to the viewer the availability of product supplemental information in this commercial.

Under scenario (i), the viewer decides to make an immediate purchase. Activation of the buy button 174 will lead the viewer through a purchase experience, culminating in the purchase of the goods or services. Upon completing the purchase, the viewer can resume watching the televised broadcast. In one embodiment of the invention, though the video has been freeze-framed, the set top box includes a buffering function and sufficient and capacity to continue receiving the broadcast. This way, when the experience has concluded, the viewer will not have missed any of the program.

Fig. 4B shows the commercial a short while later. Suppose the viewer has activated the information button 172 on the remote control 158 in accordance with user scenario (ii). The video is freeze-framed and a series of still-frames shown as thumbnail-like images 404 are displayed along the left-hand side of the video. These thumbnails allow the viewer to select a particular frame of the video to identify the product of interest. The viewer can scroll the list of frames up or down to view other frames of the commercial. As exemplified in Fig. 4B, a selected frame 406 is highlighted by a bright border 408.

Fig. 4C shows the display after having made the still-frame selection shown in Fig. 4B. Product selection within the selected still-frame is made via the remote control unit. A selection graphic such as an arrow icon 412 is displayed on the screen and moved about by appropriate commands from the remote control unit. The set top box receives transmissions from the remote control unit and keeps track of the location of the arrow as it is moved about on the screen. As noted above, the targeting information identifies where each product in the still-frame is located. When the arrow icon is positioned proximate a product for which there is supplemental information, the corresponding information will be displayed. Alternatively, the viewer can cycle through the items in the commercial by activating an appropriate control on the remote control



unit. This has the advantage of simplifying the viewer's experience when selecting items. The viewer simply activates the remote (e.g., button press) and each item is highlighted in sequence.

Continuing, Fig. 4C shows that the viewer has selected the denim jacket 414 worn by the male model. The main viewing area is grayed out and the selected jacket is highlighted. The contrast between a selected item and the rest of the image is enhanced to indicate the selected item. The contrast enhancement can be achieved by decreasing the intensity of the entire image, except for the selected item; or by increasing the intensity only of the selected item; or by varying the intensity of both the selected item and the rest of the image accordingly. Other visual indication techniques can be used. For example, the selected item can be shown in outline by displaying a bright border around the periphery of the object.

The corresponding product supplemental information relating to the jacket is displayed in an information window 410. For example, the price of the jacket is provided. The available sizes are shown. A description of the jacket is given, and so on. Of course, more or less information can be provided. The information window can be made to scroll up and down if there is more information than available display area in the window.

When the viewer has completed his review of the product information, he may return to the televised broadcast. Alternatively, he may decide to make a purchase of the product.

Referring now to Fig. 4D, interaction in accordance with viewer experience scenario (iii) is discussed. The figure shows a purchase box 416 being displayed in response to the viewer having made a purchase selection on the remote control unit. Here, the viewer is queried as to whether the selected item should be placed in the viewer's shopping cart. The "shopping cart" is a useful paradigm in that it allows the viewer to make a series of purchases over multiple commercials during his viewing session. The shopping cart avoids "buyer's remorse" syndrome by allowing the viewer to change his mind about a purchase, or to cancel an inadvertent purchase.

Alternatively, the purchase can be concluded immediately with this merchant. The viewer is queried for a PIN (personal identification number). Once entered, the viewer confirms the shipping and credit card (or other payment mechanism) and concludes the transaction.

At the end of the viewing session, the viewer is prompted to confirm his purchases. This may be an item by item verification. It may involve nothing more than displaying the contents of the shopping cart. Additional interaction can be provided to allow the viewer to remove items from the shopping cart. Other response mechanisms  
5 include simply picking up the phone and placing a call.

Next, payment for the goods must be made. Various payment mechanisms are available. For example, a first time viewer might be prompted through a series of questions to establish an account. A registered viewer might need only provide a password to complete the transaction. Communication over the network, whether a local  
10 network or a global network such as the Internet, occurs over a secure channel such as SSL (secure sockets layer protocol).

Returning again to Fig. 3, it can be seen that yet another user selection can be made which sends the viewer to a web site maintained by the merchant, action 312. Referring to Fig. 1, the set top box establishes access to the merchant's web site. The  
15 URL for the web site is included along with the targeting information and the product supplemental information. The web page can contain code which recognizes the information button 172 and the buy button 174, and takes the appropriate actions for that web page.

Web access over the Internet can be achieved via a cable modem, a  
20 telephone line using a conventional modem, and so on. It will be recognized by one of ordinary skill in the relevant art that in accordance with the invention any means by which access to the Internet can be accomplished falls within the scope of the invention as claimed.

As noted above, Internet access is not necessary to practice the invention.  
25 A locally provided network would be well within the scope of the invention as claimed. The foregoing functions can be easily supplied by the cable provider for example. The cable provider could build a web site that is accessed only by its subscribers. In such a case, the cable provider would serve as an intermediary and submit the purchases to the actual merchants.

30 Returning to Fig. 2, another aspect of the invention involves the insertion of product supplemental information into non-advertisement programming content, namely regular programming. The producer of the audio-visual content provides targeting information relating to each item shown in any given scene. The merchant

provides the product supplemental information which the producer of the audio-visual content inserts.

A beneficial outcome of this aspect of the invention is that fewer commercial breaks would be needed. Merchants can now integrate their advertising  
5 along with the programming itself. In fact, the programming becomes the very vehicle by which merchants advertise their product.

Referring back to Fig. 1, another aspect of the invention is shown. Instead of delivering the signal directly to the television set for immediate viewing, the signal can be stored on a VCR or like device for subsequent viewing. Conventional VCRs use  
10 magnetic tape as the storage medium. VCR-like devices are available which provide for storage on high capacity disk drives. In accordance with the invention, the recorded material would contain the product supplemental information. Playback of the recorded material is fed into the set top box. Consequently, the set top box processes the signal as if it had been received over cable.

WHAT IS CLAIMED IS:

1                   1.       In an interactive television system, a method for displaying one or  
2 more products for purchase comprising:  
3                   receiving a television broadcast containing advertisement content relating  
4 to said products, including product supplemental information;  
5                   displaying said advertisement content;  
6                   conditionally indicating the presence of said product supplemental  
7 information;  
8                   receiving a user request of a first kind; and  
9                   in response to said user request of a first kind, displaying at least a portion  
10 of said product supplemental information.

1                   2.       The method of claim 1 wherein said conditionally indicating  
2 includes determining whether the merchant of said advertisement content is an authorized  
3 merchant and indicating said product supplemental information only for authorized  
4 merchants.

1                   3.       The method of claim 2 wherein said product supplemental  
2 information includes merchant identification which identifies a merchant of said products,  
3 said determining includes matching said merchant identification against a list of  
4 participating merchants.

1                   4.       The method of claim 1 further including freeze-framing said  
2 advertisement content and presenting a viewer manipulable graphic to allow said viewer  
3 to select one of said products.

1                   5.       The method of claim 1 wherein said conditionally indicating  
2 includes a step of displaying a graphic along with said advertisement content to visually  
3 indicate the availability of said product supplemental information.

1                   6.       The method of claim 5 wherein said conditionally indicating  
2 further includes displaying one or more still frames.

1                   7.       The method of claim 5 wherein said conditionally indicating  
2 further includes displaying plural still-frames in a scroll-able window.

1                   8.     The method of claim 1 wherein said product supplemental  
2 information is displayed in a window.

1                   9.     The method of claim 8 wherein said window is scroll-able.

1                   10.    The method of claim 1 wherein said television broadcast is stored  
2 on a storage medium and said receiving a television broadcast is a step of outputting said  
3 television broadcast from said storage medium.

1                   11.    The method of claim 10 wherein said storage medium is an analog  
2 medium.

1                   12.    The method of claim 10 wherein said storage medium is a digital  
2 medium.

1                   13.    The method of claim 1 further including receiving a user request of  
2 a second kind and in response thereto adding one or more of said products to a viewer  
3 shopping cart.

1                   14.    The method of claim 1 further including receiving a user request of  
2 a second kind and in response thereto submitting a purchase order for one or more of said  
3 products.

1                   15.    The method of claim 14 wherein said submitting is a step of  
2 communicating over a communication network.

1                   16.    The method of claim 15 wherein said communication network is a  
2 global communication network.

1                   17.    The method of claim 1 further including communicating over a  
2 communication network to obtain still further information relating to said product.

1                   18.    The method of claim 17 wherein said network is the Internet.

1                   19.    The method of claim 17 wherein said communicating occurs using  
2 a cable modem.

- 1                   20.    The method of claim 17 wherein said communicating occurs using  
2   a telephone modem.
- 1                   21.    The method of claim 1 wherein said television broadcast is  
2   received over a cable.
- 1                   22.    The method of claim 1 wherein said television broadcast is  
2   received by an antenna or by a satellite dish.
- 1                   23.    A method for electronic commerce comprising:  
2                   transmitting a television signal, said television signal carrying audio-visual  
3   content and product information correlated with one or more items contained in said  
4   audio-visual content;  
5                   presenting said audio-visual content to a viewer; and  
6                   conditionally displaying a portion of said product information related to a  
7   viewer-selected item contained in said audio-visual content in response to detecting a first  
8   viewer-initiated directive, including determining whether the merchant of said  
9   advertisement content is an authorized merchant.
- 1                   24.    The method of claim 23 further including performing an interactive  
2   sequence of activities to effectuate a purchase of said viewer-selected item in response to  
3   detecting a second viewer-initiated directive.
- 1                   25.    The method of claim 23 further including adding said viewer-  
2   selected item to a shopping cart in response to detecting a second viewer-initiated  
3   directive.
- 1                   26.    The method of claim 23 wherein said audio-visual content is not a  
2   commercial.
- 1                   27.    The method of claim 23 further including freeze-framing said  
2   audio-visual content, displaying a viewer manipulable graphic, and receiving viewer  
3   input to move said manipulable graphic to allow said viewer to select one of said items.
- 1                   28.    The method of claim 23 wherein said displaying includes  
2   presenting plural still frames to said viewer.

- 1                   29.     The method of claim 28 wherein said still frames are displayed in a  
2 scroll-able window.
- 1                   30.     The method of claim 23 wherein said product information is  
2 displayed in a scroll-able window.
- 1                   31.     The method of claim 23 wherein said performing an interactive  
2 sequence includes accessing a web site associated with said viewer-selected item.
- 1                   32.     The method of claim 23 further including accessing a  
2 communication network to obtain additional product information.
- 1                   33.     The method of claim 32 wherein said additional product  
2 information includes a web page.
- 1                   34.     The method of claim 32 wherein said communication network is  
2 the world wide web.
- 1                   35.     The method of claim 23 wherein said viewer-initiated directives  
2 are transmissions from a remote control unit.
- 1                   36.     An interactive television system for interactive advertising,  
2 comprising:  
3                   a display having an associated sound generating component;  
4                   first circuitry configured to receive a television signal and to monitor  
5 content contained in said television signal, said first circuitry further configured to detect  
6 the presence of product supplemental information relating to an advertisement for a  
7 product;  
8                   second circuitry configured to deliver said television signal from said first  
9 circuitry to said display to produce audio-visual content and further configured to produce  
10 an indication graphic to indicate the presence of said product supplemental information;  
11                   third circuitry configured to receive user provided input; and  
12                   fourth circuitry configured for communication over a communication  
13 network,  
14                   said second circuitry further configured to present a portion of said product  
15 supplemental information in response to receiving user provided input of a first type,

16                   said fourth circuitry further configured to transmit first information  
17 relating to said product over said communication network.

1                   37.     The system of claim 36 wherein said second circuitry is further  
2 configured to present said product supplemental information in a scroll-able window.

1                   38.     The system of claim 36 wherein said second circuitry is further  
2 configured to display one or more still frames of said audio-visual content.

1                   39.     The system of claim 38 wherein said still frames are displayed in a  
2 scroll-able window.

1                   40.     The system of claim 36 wherein said first circuit is further  
2 configured to receive said television signal over cable.

1                   41.     The system of claim 36 wherein said fourth circuit is a cable  
2 modem.

1                   42.     The system of claim 36 wherein said fourth circuit is further  
2 configured for communication over a telephone line.

1                   43.     The system of claim 36 wherein said fourth circuit is further  
2 configured to communicate over an ISDN channel.

1                   44.     The system of claim 36 wherein said first information is a purchase  
2 request.

1                   45.     The system of claim 36 wherein said first information is an address  
2 of a web page.

1                   46.     The system of claim 36 wherein said television system is a  
2 television set.

1                   47.     The system of claim 36 wherein said television system is a  
2 personal computer.

1                   48.     The system of claim 36 wherein said communication network is a  
2 global communication network.



1                   49.     The system of claim 48 wherein said global communication  
2 network is the Internet.

1                   50.     In an interactive television system for viewing audio-visual  
2 content, a method for interactively advertising one or more articles for sale contained in  
3 said audio-visual content comprising:  
4                   providing a signal containing said audio-visual content;  
5                   providing product-related information corresponding to said one or more  
6 articles for sale;  
7                   inserting said product-related information into said signal to produce a  
8 combined signal;  
9                   transmitting said combined signal to a display device;  
10                  displaying said audio-visual content on said display device;  
11                  receiving a user-initiated selection of a selected one of said one or more  
12 articles for sale in said audio-visual content; and  
13                  in response to said user-initiated selection, displaying at least some of said  
14 product-related information corresponding to said selected one of said one or more  
15 articles for sale.

1                   51.     The method of claim 50 wherein said product-related information  
2 includes merchant identification which identifies a merchant of said product, and if said  
3 merchant identification is in a list of participating merchants, then indicating the presence  
4 of said product-related information, so that product-related information of unauthorized  
5 merchants will not be displayed.

1                   52.     The method of claim 50 wherein said providing product-related  
2 information includes providing targeting parameters which identify the location of said  
3 one or more articles for sale in said audio-visual content and wherein said receiving a  
4 user-initiated selection includes receiving position input information from a user and  
5 correlating said position input information with said targeting parameters to identify said  
6 selected one of said one or more articles for sale.

1                   53.     The method of claim 50 wherein said transmitting is a step of  
2 transmitting said combined signal over a cable system.

1                   54.     The method of claim 50 wherein said displaying at least some of  
2     said product-related information includes obtaining said product supplemental  
3     information over a communication network.

1                   55.     The method of claim 54 wherein said communication network is  
2     the world wide web.

1                   56.     The method of claim 54 wherein said product supplemental  
2     information is obtained from a web page.

1                   57.     The method of claim 50 wherein said receiving a user-initiated  
2     selection includes receiving a remote signal from a remote control unit.

58. The method of claim 57 wherein said remote signal is an infrared transmission.

1 59. In an interactive television system, a method for displaying one or  
2 more products for purchase comprising:  
3 receiving a television broadcast containing advertisement content relating  
4 to said products, including product supplemental information;  
5 displaying said advertisement content;  
6 conditionally indicating the presence of said product supplemental  
7 information;  
8 receiving a user request of a first kind; and  
9 in response to said user request of a first kind, initiating a purchase  
10 sequence to purchase one or more of said products.

1 60. The method of claim 59 wherein said conditionally indicating  
2 includes determining whether the merchant of said advertisement content is an authorized  
3 merchant and indicating said product supplemental information only for authorized  
4 merchants.

1 61. The method of claim 60 wherein said product supplemental  
2 information includes merchant identification which identifies a merchant of said products,  
3 said determining includes matching said merchant identification against a list of  
4 participating merchants.

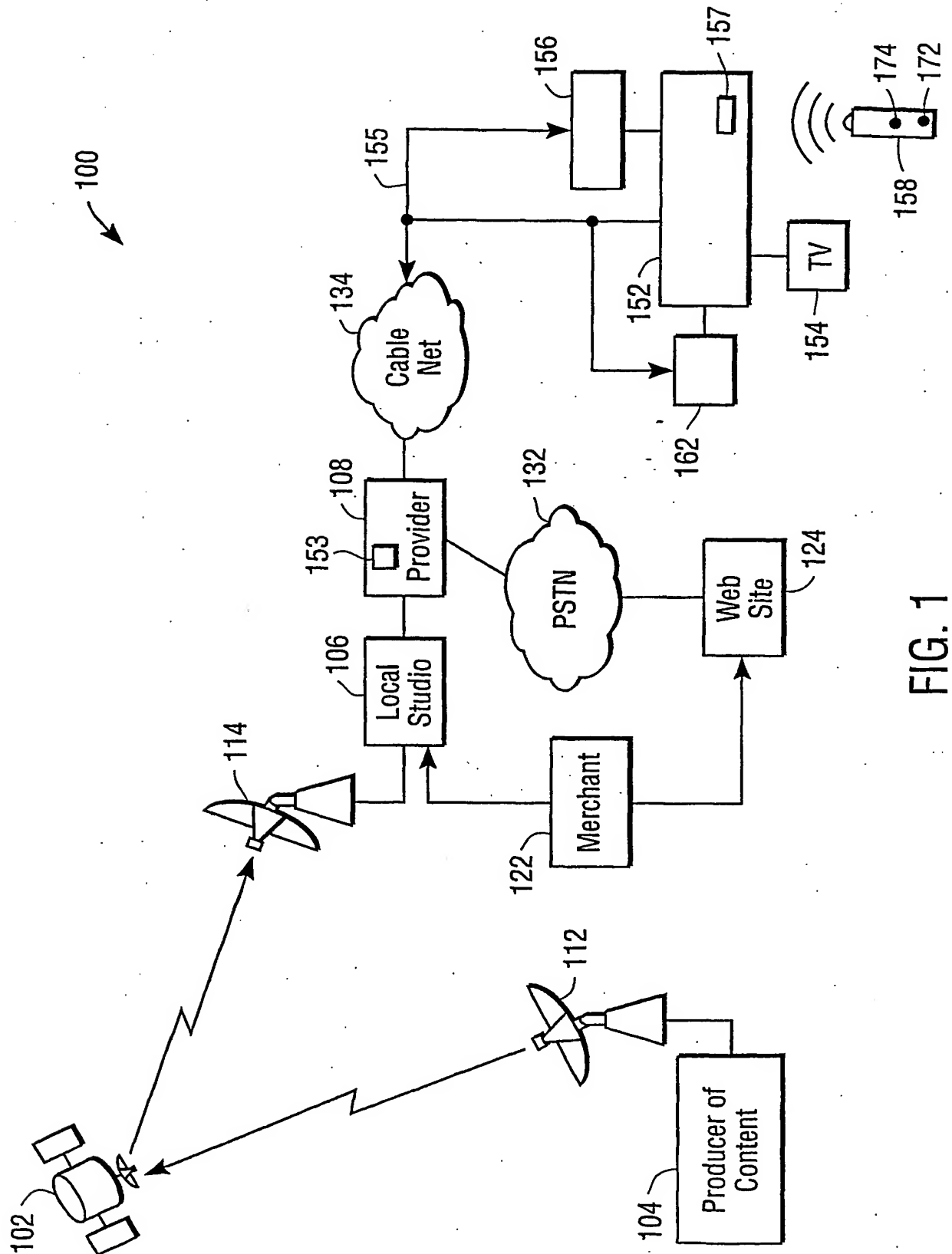
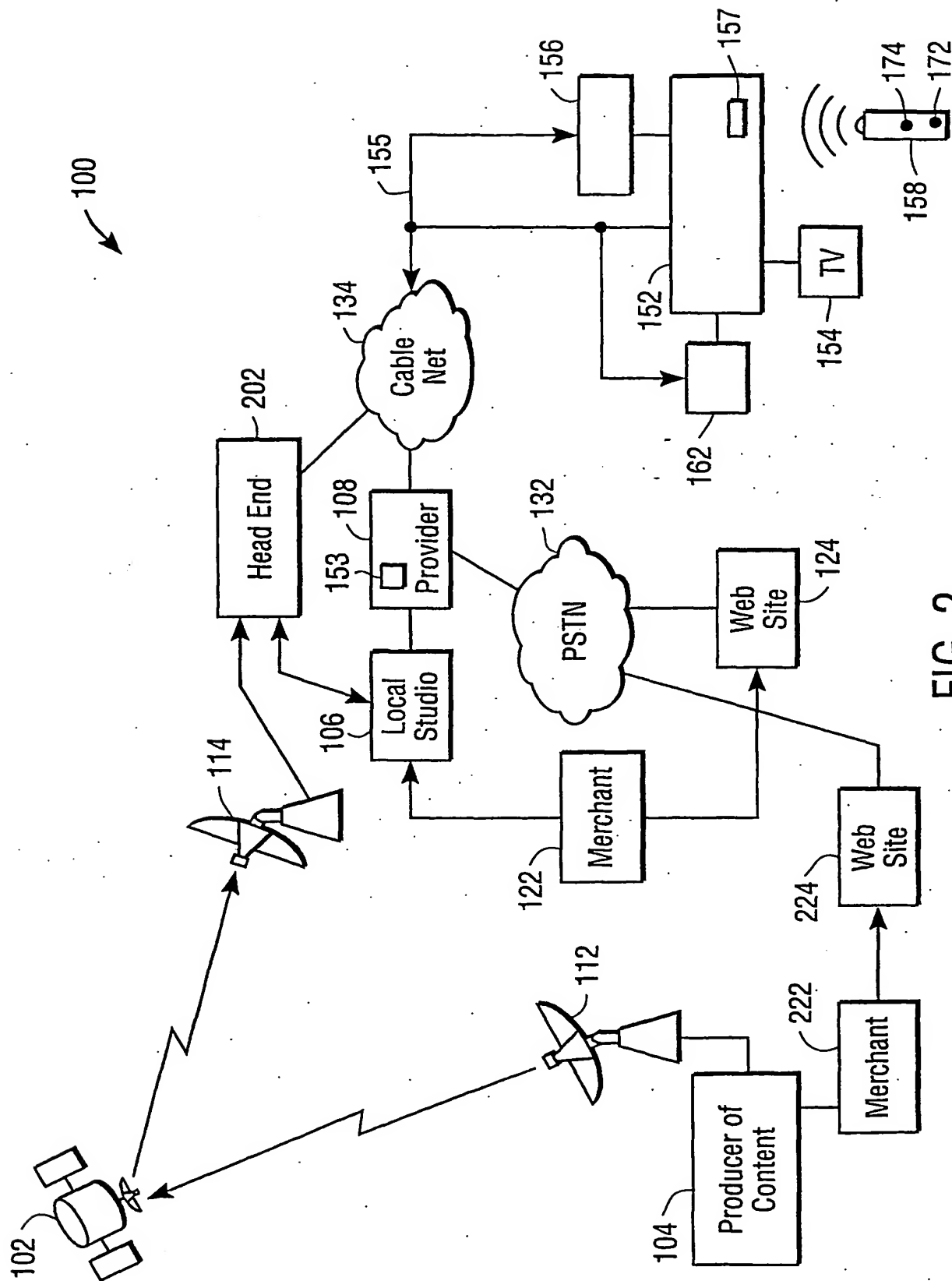


FIG. 1



**FIG. 2**

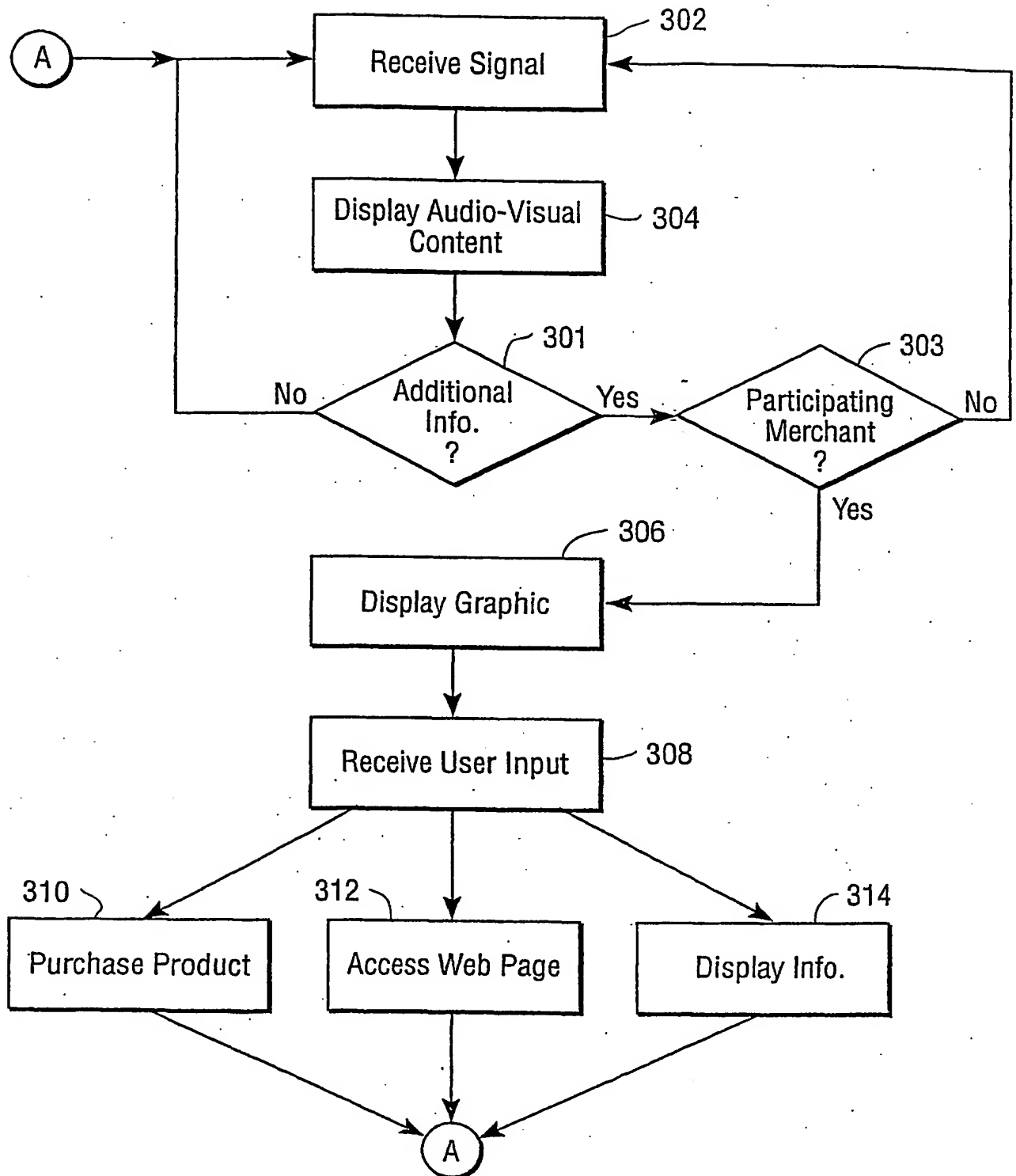


FIG. 3

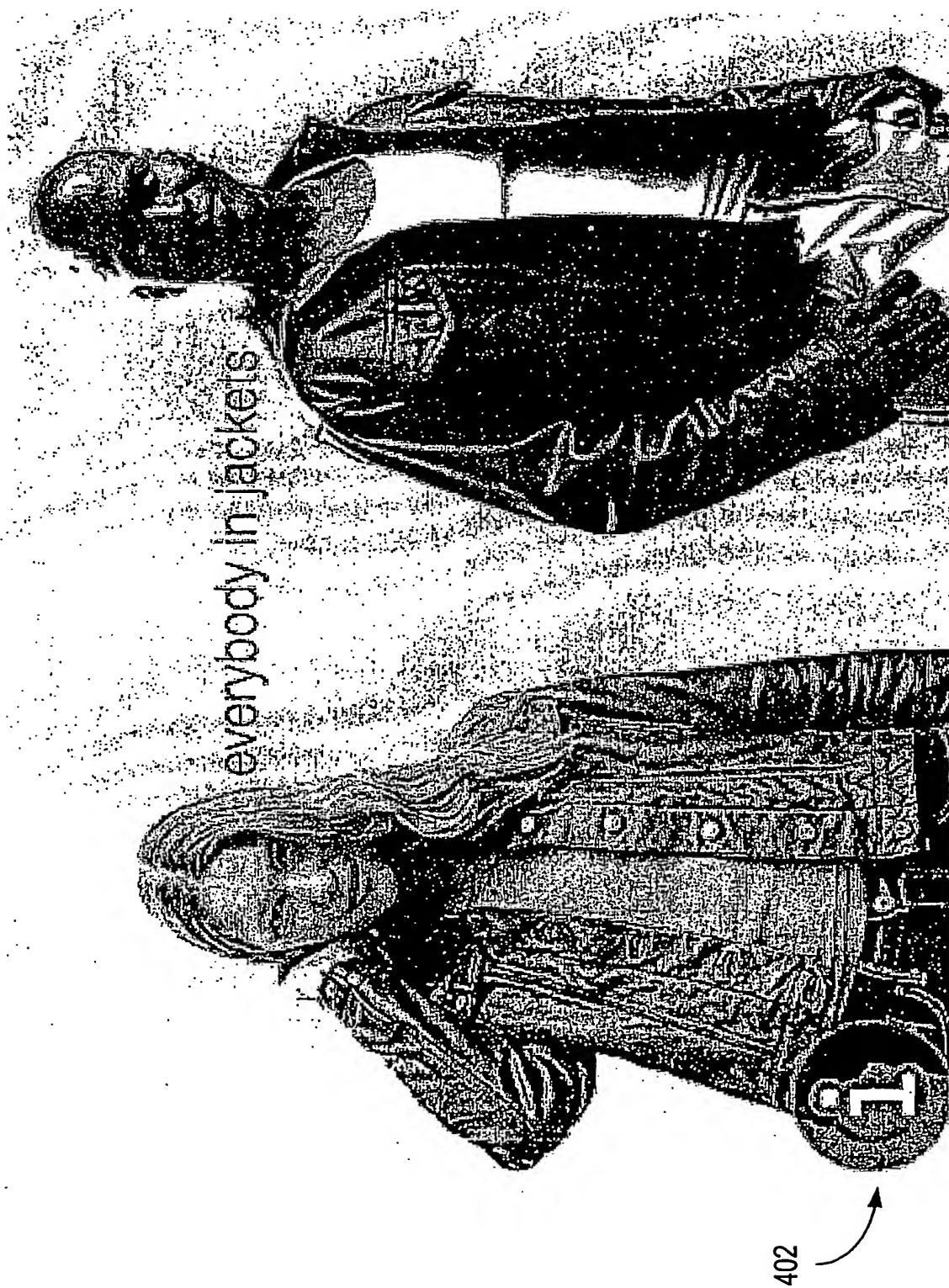


FIG. 4A

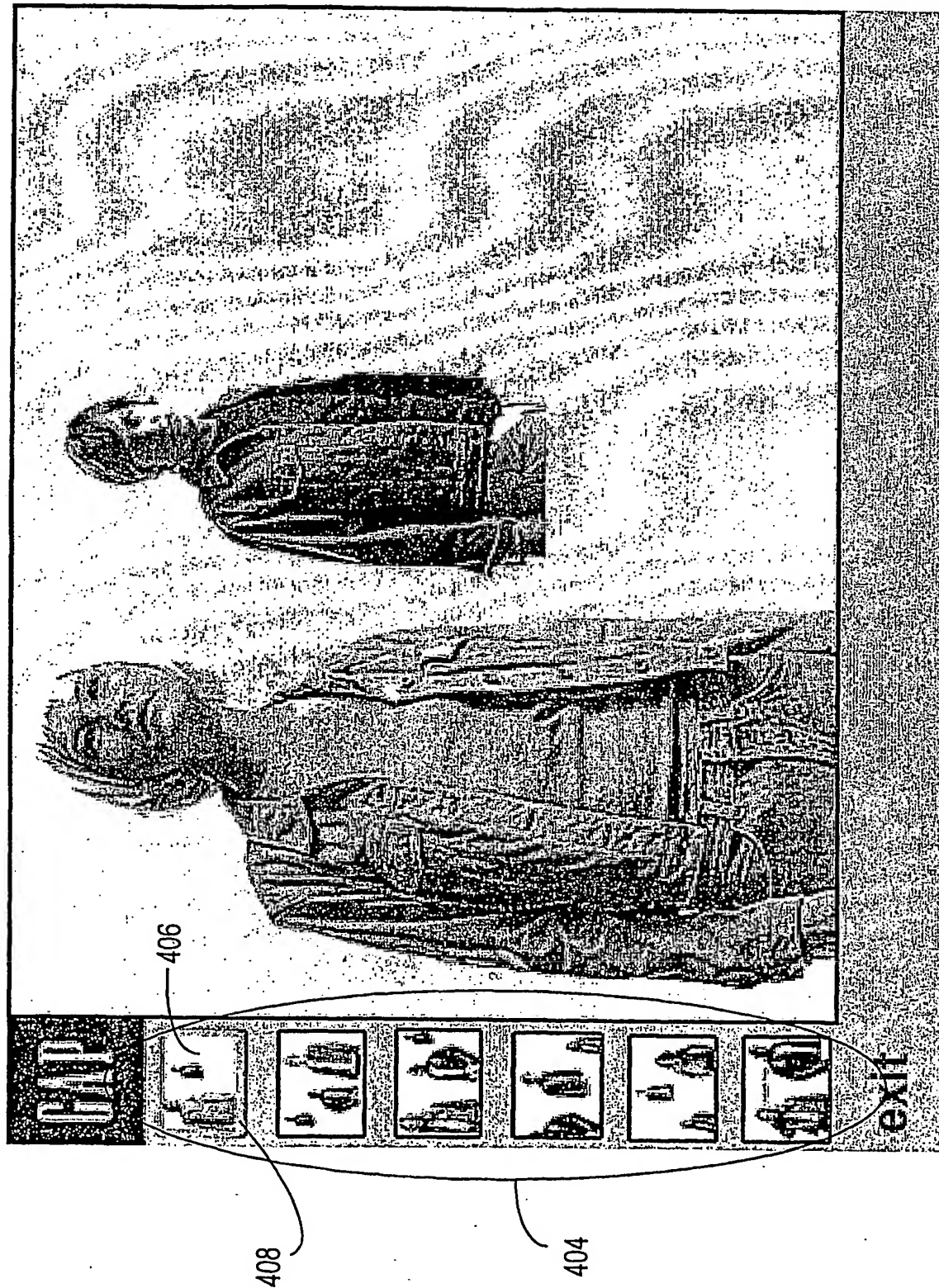


FIG. 4B



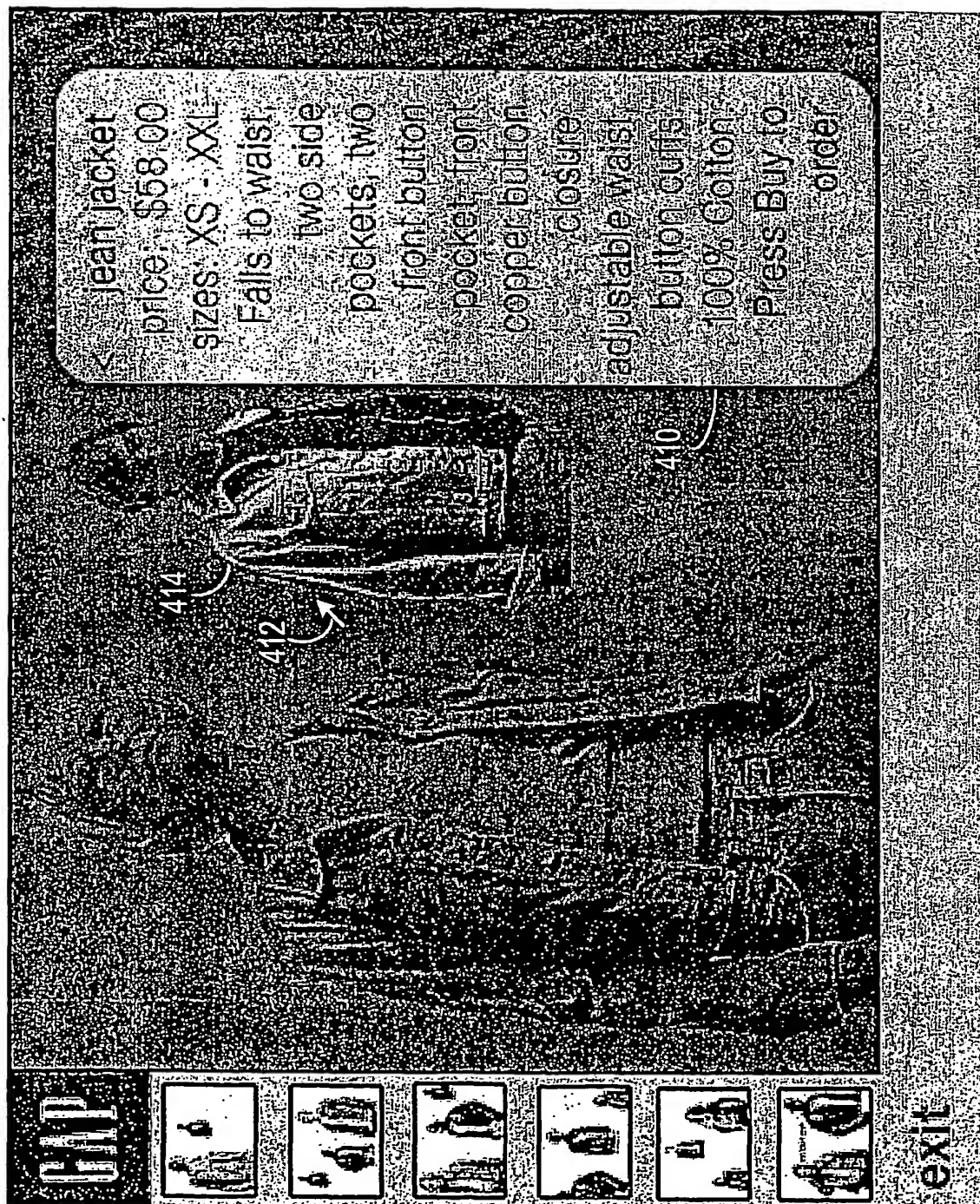


FIG. 4C

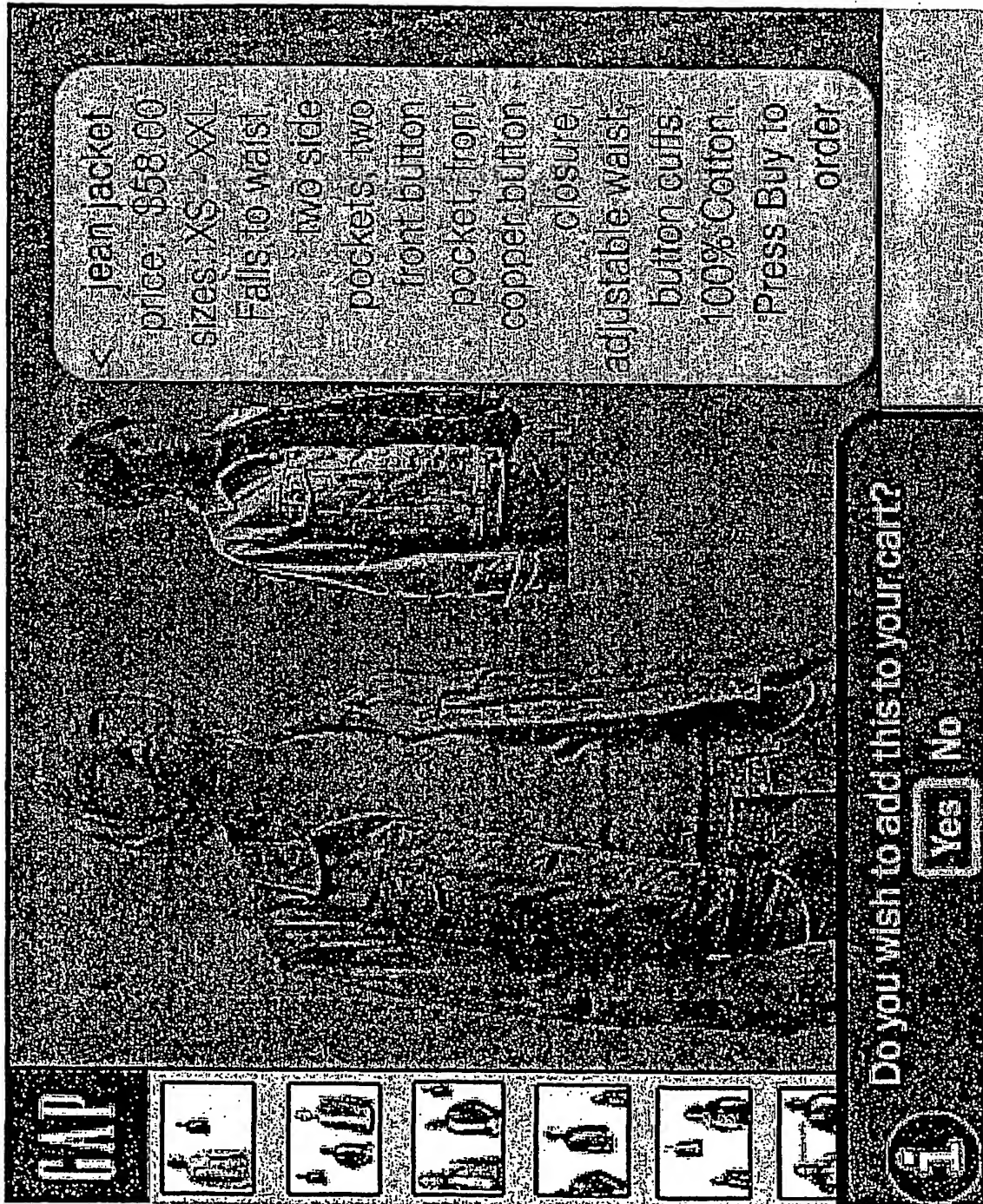


FIG. 4D

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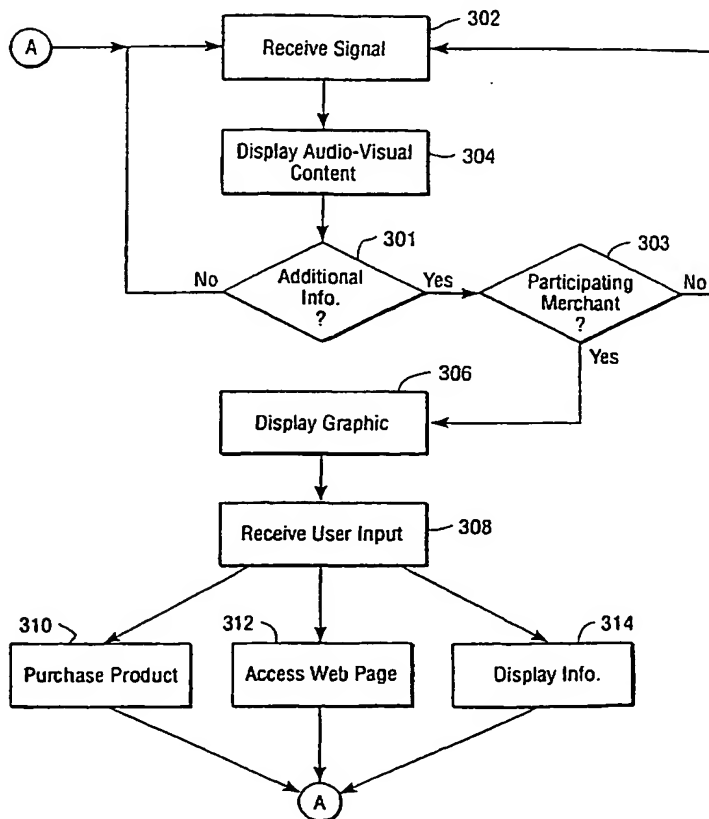
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(54) Title: METHOD AND APPARATUS FOR PURCHASING PRODUCT OVER AN INTERACTIVE TELEVISION NET-  
WORK



(57) Abstract: Advertising of products in an interactive TV system is facilitated by including additional information (301) in the transmission. Presence of the additional information (301) is detected and in response, the viewer is informed accordingly. An authorized merchant list (303) controls which merchants can present the additional information. The viewer selects whether to display the additional information (301). Connection to a communications network permits viewers (303) to gain further information. The viewer can ultimately initiate a purchasing actions to purchase the products (310).

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IPC(7) : HO4N 7/20, 173; HO4H 1/04; G06F 17/60.

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## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,929,849 A (KIKINIS) 27 July 1999. Abstract; Fig. 2c; col. 4, lines 35-45; col. 6, lines 50-64; col. 8, lines 38-44	1-57
Y	US 6,026,377 A (BURKE) 15 February 2000. Abstract; Fig. 6; Fig. 7; col. 4, lines 13-35; col. 5, lines 38-50.	1-57
Y	US 5,903,816 A (BROADWIN, et al) 11 May 1999. Abstract; Fig. 17. Fig. 18.	1-57

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